

## Claims

[c1]

What is claimed is:

1. A method for collision avoidance in Ethernet networks, the method comprising the following steps: Having a network with a plurality of control devices; Having all control devices management functions executed by a computer means; Sending a broadcast message to all of the control devices; and Having said control devices response to said broadcast message on an unique time delay.
2. A method as in Claim 1 in which the network uses an Ethernet standard.
3. A method as in Claim 1 in which said computer means is an 8-bit processor.
4. A method as in Claim 1 further comprising having a hub.
5. A method as in Claim 1 including the following steps: Using the fourth byte of the control device's MAC address as a counter; and Using said counter to determine the delay that said control device will send said response.
6. A method as in Claim 1 including the following steps: Using the fourth byte of the control device's MAC address as a decreasing counter; Reducing the counter until counter reaches zero then having the control device send the response.
7. A method as in Claim 1 including the following steps: Using the fourth byte of the control device's MAC address as a counter; Having a parameter to set time increments for delay; and Using said counter to determine the delay that said control device will send said response.
8. A method as in Claim 1 including the following steps: Using the fourth byte of the control device's MAC address as a counter; Having said broadcast message contain an adjustment parameter to set required number of bytes used by said counter; and Using said counter to determine the delay that said control device will send said response.
9. A method as in Claim 1 including the following steps: Using the fourth, fifth and sixth bytes of the control device's MAC address as a counter; and Using said counter to determine the delay that said control device will send

said response.

10. A method as in Claim 1 including the following steps: Using the fourth, fifth and sixth bytes of the control device's MAC address as a decreasing counter; and Reducing the counter until counter reaches zero then having the control device send the response.

11. A method as in Claim 1 including the following steps: Using the fourth, fifth and sixth bytes of the control device's MAC address as a decreasing counter; Having a parameter to set time increments for delay; and Using said counter to determine the delay that said control device will send said response.

12. A method as in Claim 1 including the following steps: Using the fourth, fifth and sixth bytes of the control device's MAC address as a decreasing counter; Having said broadcast message contain an adjustment parameter to set required number of bytes used by said counter; and Using said counter to determine the delay that said control device will send said response.